

Amendments to the Claims

Cancel Claims 6, 7, 8 and 9.

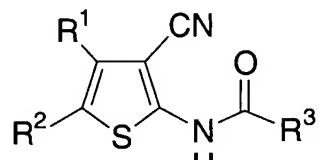
This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 – 13 (cancelled)

Claim 14. (currently amended): A compound in accordance with claim 6 of the formula

I:

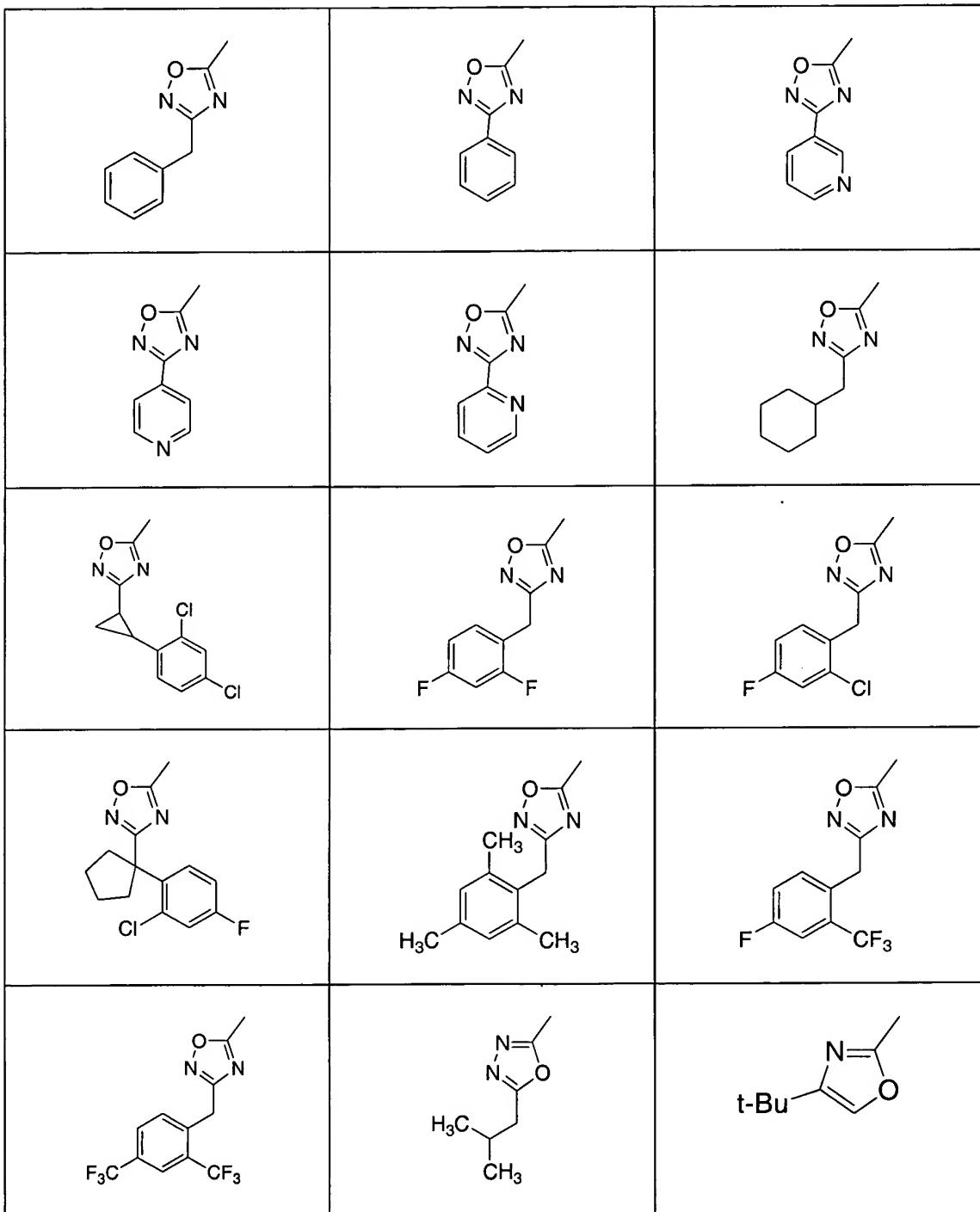


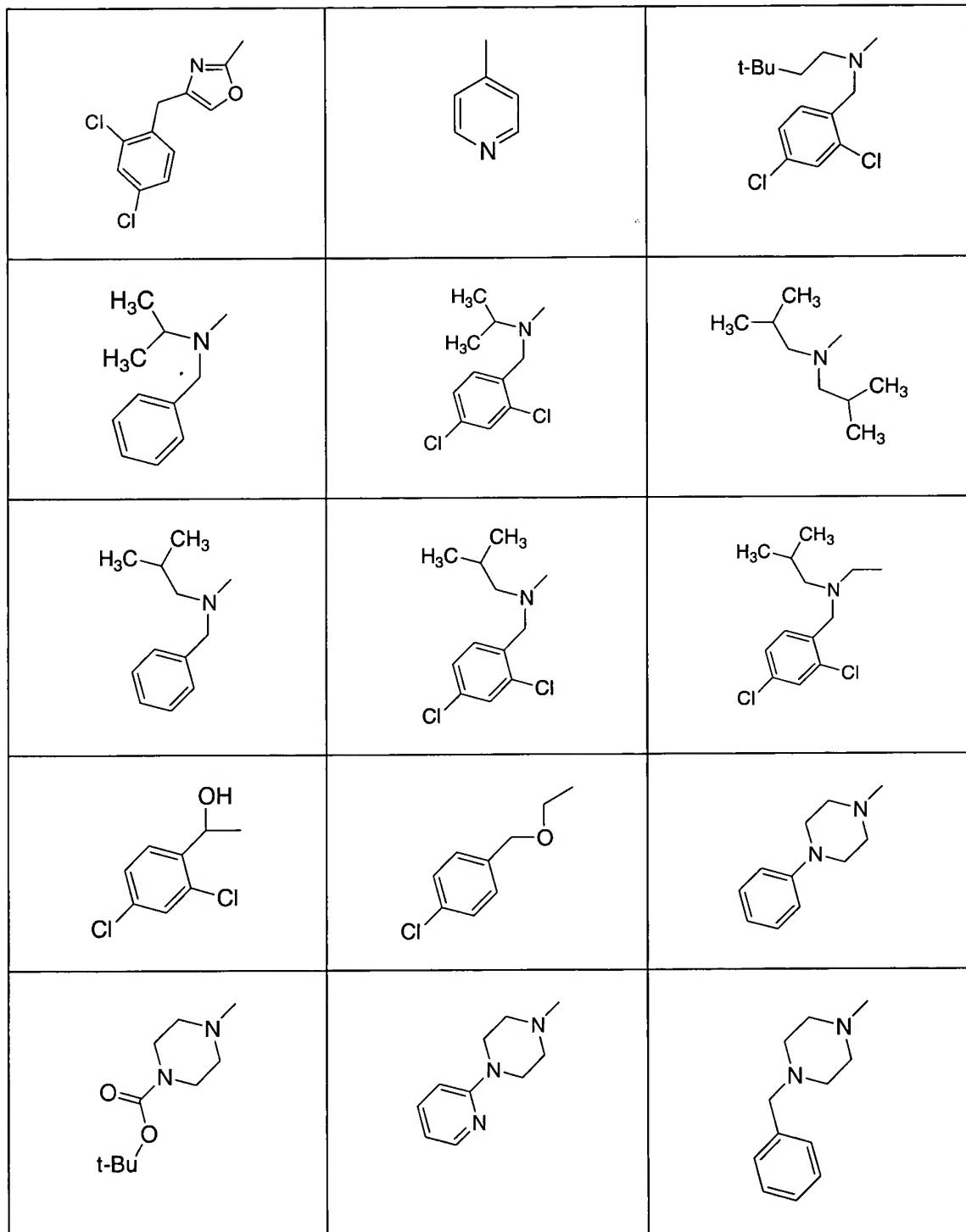
wherein:

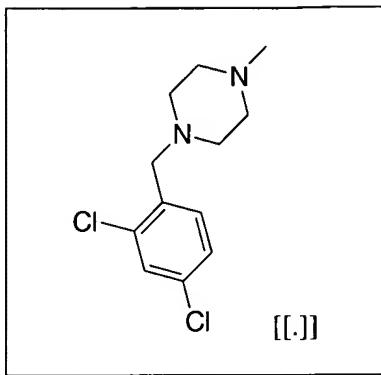
R<sup>1</sup> represents methyl;

R<sup>3</sup> represents 3-pentyl, and R<sup>2</sup> is selected from the table below:

R <sup>2</sup>







Claim 15 (currently amended): A compound in accordance with claim 6 selected from the group consisting of:

N-[3-cyano-5-(3-isobutyl-1,2,4-oxadiazol-5-yl)-4-methylthien-2-yl]-2-ethylbutanamide;  
N-{3-cyano-5-[3-(2,4-dichlorobenzyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-[5-(3-tert-butyl-1,2,4-oxadiazol-5-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;  
N-[5-(3-benzyl-1,2,4-oxadiazol-5-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;  
N-[3-cyano-4-methyl-5-(3-phenyl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;  
N-[3-cyano-4-methyl-5-(3-pyridin-2-yl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;  
N-[3-cyano-4-methyl-5-(3-pyridin-3-yl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;  
N-[3-cyano-4-methyl-5-(3-pyridin-4-yl-1,2,4-oxadiazol-5-yl)thien-2-yl]-2-ethylbutanamide;  
N-{3-cyano-5-[3-(cyclohexylmethyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-(3-cyano-5-{3-[1-(2,4-dichlorophenyl)cyclopropyl]-1,2,4-oxadiazol-5-yl}-4-methylthien-2-yl)-2-ethylbutanamide;  
N-{3-cyano-5-[3-(2,4-difluorobenzyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-{5-[3-(2-chloro-4-fluorobenzyl)-1,2,4-oxadiazol-5-yl]-3-cyano-4-methylthien-2-yl}-2-ethylbutanamide;  
N-(5-{3-[1-(2-chloro-4-fluorophenyl)cyclopentyl]-1,2,4-oxadiazol-5-yl}-3-cyano-4-methylthien-2-yl)-2-ethylbutanamide;  
N-{3-cyano-5-[3-(mesitylmethyl)-1,2,4-oxadiazol-5-yl]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-(3-cyano-5-{3-[4-fluoro-2-(trifluoromethyl)benzyl]-1,2,4-oxadiazol-5-yl}-4-methylthien-2-yl)-2-ethylbutanamide;

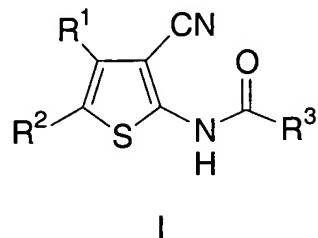
N-(5-{3-[2,4-bis(trifluoromethyl)benzyl]-1,2,4-oxadiazol-5-yl}-3-cyano-4-methylthien-2-yl)-2-ethylbutanamide;  
N-[3-cyano-5-(5-isobutyl-1,3,4-oxadiazol-2-yl)-4-methylthien-2-yl]-2-ethylbutanamide;  
N-[5-(4-tert-butyl-1,3-oxazol-2-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;  
N-{3-cyano-5-[4-(2,4-dichlorobenzyl)-1,3-oxazol-2-yl]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-(3-cyano-4-methyl-5-pyridin-4-ylthien-2-yl)-2-ethylbutanamide;  
N-{3-cyano-5-[(2,4-dichlorobenzyl)(3,3-dimethylbutyl)amino]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-{5-[benzyl(isopropyl)amino]-3-cyano-4-methylthien-2-yl}-2-ethylbutanamide;  
N-{3-cyano-5-[(2,4-dichlorobenzyl)(isopropyl)amino]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-[3-cyano-5-(diisobutylamino)-4-methylthien-2-yl]-2-ethylbutanamide;  
N-{5-[benzyl(isobutyl)amino]-3-cyano-4-methylthien-2-yl}-2-ethylbutanamide;  
N-{3-cyano-5-[(2,4-dichlorobenzyl)(isobutyl)amino]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-{3-cyano-5-[(2,4-dichlorophenyl)(hydroxy)methyl]-4-methylthien-2-yl}-2-ethylbutanamide;  
N-(3-cyano-5-[(2,4-dichlorobenzyl)(isobutyl)amino]methyl)-4-methylthien-2-yl)-2-ethylbutanamide;  
N-[3-cyano-4-methyl-5-(4-phenylpiperazin-1-yl)thien-2-yl]-2-ethylbutanamide;  
tert-butyl 4-{4-cyano-5-[(2-ethylbutanoyl)amino]-3-methylthien-2-yl}piperazine-1-carboxylate;  
N-[3-cyano-4-methyl-5-(4-pyridin-2-ylpiperazin-1-yl)thien-2-yl]-2-ethylbutanamide;  
N-[5-(4-benzylpiperazin-1-yl)-3-cyano-4-methylthien-2-yl]-2-ethylbutanamide;  
N-{3-cyano-5-[4-(2,4-dichlorobenzyl)piperazin-1-yl]-4-methylthien-2-yl}-2-ethylbutanamide;  
and  
N-(5-[(4-chlorobenzyl)oxy]methyl)-3-cyano-4-methylthien-2-yl)-2-ethylbutanamide, as well as  
the pharmaceutically acceptable salts and solvates thereof.

Claim 16 (previously presented): A pharmaceutical composition which is comprised of a compound in accordance with claim 19 in combination with a pharmaceutically acceptable carrier.

Claim 17 (withdrawn): A method of treating type 2 diabetes mellitus in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim 19 in an amount that is effective to treat type 2 diabetes mellitus.

Claim 18 (withdrawn): A method of preventing or delaying the onset of type 2 diabetes mellitus in a mammalian patient in need thereof, comprising administering to said patient a compound in accordance with claim 19 in an amount that is effective to prevent or delay the onset of type 2 diabetes mellitus.

Claim 19 (previously presented): A compound represented by formula I:



or a pharmaceutically acceptable salt or solvate thereof wherein:

R<sup>1</sup> is selected from the group consisting of: H, C<sub>1-10</sub>alkyl, Aryl, Heteroaryl and Heterocyclyl,

said alkyl, Aryl, Heteroaryl and Heterocyclyl being optionally substituted with one to four substituents independently selected from R<sup>6</sup>;

R<sup>2</sup> represents NR<sup>4</sup>R<sup>5</sup>,

R<sup>3</sup> is selected from the group consisting of: C<sub>1-10</sub>alkyl and Aryl, said alkyl and Aryl being optionally substituted with one to four substituents independently selected from R<sup>6</sup>;

R<sup>4</sup> is selected from H and C<sub>1-10</sub>alkyl,

R<sup>5</sup> is C<sub>1-10</sub>alkyl having 1-2 R<sup>6</sup> groups attached;

R<sup>6</sup> is independently selected from the group consisting of halo, C<sub>1-7</sub>alkyl, Aryl, Heteroaryl, Heterocyclyl, OR<sup>7</sup>, SR<sup>7</sup>, S(O)<sub>m</sub>R<sup>8</sup>, S(O)<sub>2</sub>OR<sup>8</sup>, S(O)<sub>m</sub>NR<sup>7</sup>R<sup>8</sup>, NO<sub>2</sub>, NR<sup>7</sup>R<sup>8</sup>, O(CR<sup>9</sup>R<sup>10</sup>)<sub>n</sub>NR<sup>7</sup>R<sup>8</sup>, C(O)R<sup>8</sup>, CO<sub>2</sub>R<sup>7</sup>, CO<sub>2</sub>(CR<sup>9</sup>R<sup>10</sup>)<sub>n</sub>CONR<sup>7</sup>R<sup>8</sup>, OC(O)R<sup>8</sup>, CN, C(O)NR<sup>7</sup>R<sup>8</sup>, NR<sup>7</sup>C(O)R<sup>8</sup>, OC(O)NR<sup>7</sup>R<sup>8</sup>, NR<sup>7</sup>C(O)OR<sup>8</sup>, NR<sup>7</sup>C(O)NR<sup>8</sup>R<sup>9</sup>, CR<sup>7</sup>(NOR<sup>8</sup>), (CR<sup>9</sup>R<sup>10</sup>)<sub>n</sub>-Aryl, (CR<sup>9</sup>R<sup>10</sup>)<sub>n</sub>-Heteroaryl, (CR<sup>9</sup>R<sup>10</sup>)<sub>n</sub>-Heterocyclyl, CF<sub>3</sub> and OCF<sub>3</sub>;

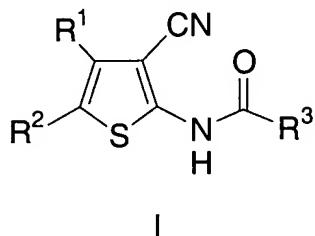
wherein m is 0, 1 or 2 and n is an integer from 1 to 7, and the alkyl, Heterocyclyl, Aryl and Heteroaryl groups and portions are optionally substituted with 1-4 substituents selected from a group independently selected from R<sup>11</sup>;

R<sup>7</sup>, R<sup>9</sup> and R<sup>10</sup> are independently selected from the group consisting of: H, C<sub>1-7</sub>alkyl, Aryl, Ar-C<sub>1-10</sub>alkyl and mono-, di- and tri- halo substituted Ar-C<sub>1-10</sub>alkyl,

or one R<sup>9</sup> and one R<sup>10</sup> are taken together with the atoms to which they are attached and any intervening atoms and represent a ring of 3 to 8 members containing 0-2 heteroatoms independently selected from O, S and N;

R<sup>8</sup> is selected from the group consisting of: C<sub>1-10</sub>alkyl, Aryl and C<sub>1-10</sub>alkyl-Aryl; and R<sup>11</sup> is selected from the group consisting of: halo, CN, C<sub>1-4</sub>alkyl, Aryl, CF<sub>3</sub> and OH.

Claim 20 (currently amended): A compound represented by formula I:



or a pharmaceutically acceptable salt or solvate thereof wherein:

R<sup>1</sup> is selected from the group consisting of: H, C<sub>1-10</sub>alkyl, Aryl, Heteroaryl and Heterocyclyl,

said alkyl, Aryl, Heteroaryl and Heterocyclyl being optionally substituted with one to four substituents independently selected from R<sup>6</sup>;

R<sup>2</sup> represents C<sub>1-10</sub> alkyl substituted with one to two R<sup>6</sup> groups;

R<sup>3</sup> is selected from the group consisting of: C<sub>1-10</sub>alkyl and Aryl, said alkyl and Aryl being optionally substituted with one to four substituents independently selected from R<sup>6</sup>;

~~R<sup>4</sup> is selected from the group consisting of: H, C<sub>1-10</sub>alkyl, Aryl, Heteroaryl, Heterocyclyl, said alkyl, Aryl, Heteroaryl, and Heterocyclyl being optionally substituted with one to four substituents independently selected from R<sup>6</sup>;~~

~~R<sup>5</sup> is selected from the group consisting of: C<sub>1-10</sub>alkyl, Aryl, Heteroaryl and Heterocyclyl, said alkyl, cycloalkyl, Aryl Heteroaryl, and Heterocyclyl being optionally substituted with one to four substituents independently selected from R<sup>6</sup>;~~

~~or alternatively, R<sup>4</sup> and R<sup>5</sup> are taken together with the atoms to which they are attached and represent a ring of 5 to 8 members containing 0-2 heteroatoms independently selected from oxygen, sulfur and nitrogen, and optionally substituted with one to four substituents independently selected from R<sup>6</sup>;~~

each R<sup>6</sup> is independently selected from the group consisting of: OR<sup>7</sup>, Aryl, mono-halophenyl and di-halophenyl .

and when  $R^2$  is other than  $C_{1-10}$  alkyl,  $R^6$  is independently selected from the group wherein  $m$  is 0, 1 or 2 and  $n$  is an integer from 1 to 7, and the alkyl, Heterocyclic, Aryl and Heteroaryl groups and portions are optionally substituted with 1-4 substituents selected from a group independently selected from  $R^{11}$ ;

$R^7$ ,  $R^9$  and  $R^{10}$  are independently selected from the group consisting of: H,  $C_{1-7}$  alkyl, Aryl, Ar- $C_{1-10}$  alkyl and mono-, di- and tri-halo substituted Ar- $C_{1-10}$  alkyl;

or one  $R^9$  and one  $R^{10}$  are taken together with the atoms to which they are attached and any intervening atoms and represent a ring of 3 to 8 members containing 0-2 heteroatoms independently selected from O, S and N;

$R^8$  is selected from the group consisting of:  $C_{1-10}$  alkyl, Aryl and  $C_{1-10}$  alkyl Aryl; and

$R^{11}$  is selected from the group consisting of: halo, CN,  $C_{1-4}$  alkyl, Aryl,  $CF_3$  and OH.

Claim 21 (cancelled)

Claim 22 (withdrawn): A method of treating type 2 diabetes mellitus in a mammalian patient in need of such treatment, comprising administering to said patient a compound in accordance with claim 20 19 in an amount that is effective to treat type 2 diabetes mellitus.

Claim 23 (withdrawn): A method of preventing or delaying the onset of type 2 diabetes mellitus in a mammalian patient in need thereof, comprising administering to said patient a compound in accordance with claim 20 in an amount that is effective to prevent or delay the onset of type 2 diabetes mellitus.